



Photoelectric sensors  
MH15, Photoelectric retro-reflective sensor,  
Standard optics

MHL15-P3329S06



**Model Name** > [MHL15-P3329S06](#)  
**Part No.** > [1042806](#)



*Illustration may differ*

#### At a glance

- Long sensing distance up to 5.0 m with PL80A reflector
- Polarizing filter reliably detects shiny object surfaces
- Indicator LED shows active switching output and operating reserve
- Straight or right-angle housing designs available
- Mounting accessories (M18 nuts and snap ring) are included
- IP 69K-tested housing

#### Your benefits

- Shortest M18 body on the market, saving installation space
- Flush mounting via snap ring reduces setup time and prevents obstructions to material flow on conveyor systems
- Polarizing filter prevents false readings on reflective objects, reducing downtime
- Highly visible red light provides simple installation and time-saving alignment to the reflector
- MHL15 is compatible with competitor sensors for easy replacement that saves installation time and costs
- IP 69K-tested housing offers a long service life that withstands harsh environments, reducing maintenance time and costs



#### Features

|                                  |                                                        |
|----------------------------------|--------------------------------------------------------|
| Sensor/detection principle:      | Photoelectric retro-reflective sensor, Standard optics |
| Housing design (light emission): | Cylindrical, angled                                    |
| Housing length:                  | 50.3 mm                                                |
| Thread diameter (housing):       | M18 x 1                                                |
| Optical axis:                    | Radial                                                 |
| Sensing range max.::             | 0.035 m ... 1.9 m <sup>1) 2)</sup>                     |
| Sensing range::                  | 0.035 m ... 0.4 m, 0.035 m ... 1 m <sup>3) 4)</sup>    |
| Type of light:                   | Visible red light                                      |
| Light source:                    | LED <sup>5)</sup>                                      |
| Wave length:                     | 650 nm                                                 |
| Angle of dispersion:             | Ca. 1.5 °                                              |
| Light spot size (distance):      | Ø 25 mm (1 m)                                          |

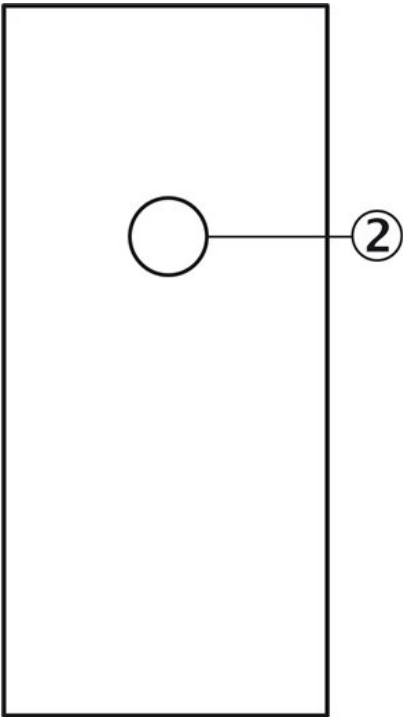
<sup>1) 3)</sup> P250 <sup>2) 4)</sup> PL50A/PL40A <sup>5)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

#### Mechanics/electronics

|                                   |                                                     |
|-----------------------------------|-----------------------------------------------------|
| Supply voltage:                   | 10 V DC ... 30 V <sup>1)</sup>                      |
| Ripple:                           | $\leq 5 \text{ Vpp}$ <sup>2)</sup>                  |
| Power consumption:                | $\leq 30 \text{ mA}$ <sup>3)</sup>                  |
| Output type:                      | PNP                                                 |
| Switching mode:                   | Light switching                                     |
| Signal voltage PNP HIGH/LOW:      | $U_v - (< 2,9 \text{ V}) / \text{ca. } 0 \text{ V}$ |
| Output current I <sub>max</sub> : | $\leq 100 \text{ mA}$                               |
| Response time:                    | $\leq 1.25 \text{ ms}$ <sup>4)</sup>                |
| Switching frequency:              | 400 Hz <sup>5)</sup>                                |
| Attenuation along light beam:     | $\geq 16 \%$                                        |
| Attenuation difference of object: | 8 %                                                 |
| Connection type:                  | Connector M12, 3-pin                                |
| Circuit protection:::             | A, C, D <sup>6)</sup> <sup>7)</sup> <sup>8)</sup>   |
| Protection class:                 | III                                                 |
| Weight:                           | 8 g                                                 |
| Polarisation filter:              | ✓                                                   |
| Front screen heating:             | -                                                   |
| Special device:                   | ✓                                                   |
| Housing material:                 | ABS, Plastic                                        |
| Optics material:                  | PMMA                                                |
| Enclosure rating:                 | IP 67<br>IP 69K                                     |
| Special feature:                  | For transparent objects                             |
| Ambient operating temperature:    | -25 °C ... 55 °C                                    |
| Ambient storage temperature:      | -25 °C ... 70 °C                                    |
| UL File No.:                      | NRKH.E189383 & NRKH7.E189383                        |

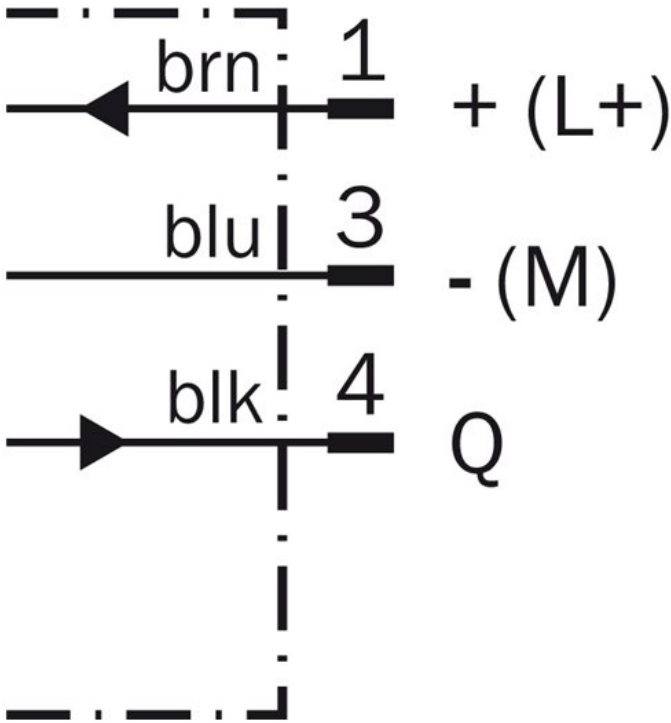
<sup>1)</sup> Limit values   <sup>2)</sup> May not exceed or fall short of  $V_S$  tolerances   <sup>3)</sup> Without load   <sup>4)</sup> Signal transit time with resistive load   <sup>5)</sup> With light/dark ratio 1:1   <sup>6)</sup>  $A = V_S$   
connections reverse-polarity protected   <sup>7)</sup> C = interference suppression   <sup>8)</sup> D = outputs overcurrent and short-circuit protected

Adjustments possible



[2] Yellow LED indicator,-lights continously: Light  
reception> reserve factor 1,5-blinks: Light recepti  
on >reserve factor 1,5but light reception>switching thres

Connection diagram



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